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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/877,728	06/18/1997	HIROTO OKAWARA	35.C12127	6347

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

[REDACTED] EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT	PAPER NUMBER
2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 08/877,728	Applicant(s) OKAWARA, HIROTO 
	Examiner LUONG T NGUYEN	Art Unit 2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 March 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-7,9,10,13-28,31-33,35-37,40-45 and 47-50 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-7,9,10,13-28,31-33,35-37,40-45 and 47-50 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on 03 March 2003 is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/2003 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-7, 9-10, 13, 42-43, 44-45, 47, 49 filed on 3/3/2003 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 14-37, 40-41, 48 and 50 filed on 3/3/2003 have been considered but are moot in view of the new ground(s) of rejection.

In re pages 19-20, Applicant argues that nowhere does the Kawanami patent '601 disclose or suggest to select an item in a menu displayed on a display apparatus of a camera part, as disclosed and claimed in the present application.

In response, regarding claim 1, Applicant amended claim 1 with the limitation "display means provided in said camera body," and "setting means for selecting a desired setting item among a plurality of items of the predetermined menu displayed on said display means by said menu function control unit." The examiner considers that claim 1 as amended still do not distinguish from Kawanami patent in view of Shimizu patent. Kawanami discloses display

means as display device 21 (figure 2, column 3, lines 10-25). Kawanami does not disclose that the menu setting means is operated by the user and does not disclose a setting means for selecting a desired setting item among a plurality of items of the predetermined menu displayed on said display means by said menu function control unit and setting a condition regarding the motion direction of the lens unit; and displaying an image picked up by said image pickup means. However, this feature is taught by Shimizu. Shimizu discloses display 62 for displaying an image picked up by image sensor 2 (figure 1, column 4, lines 31-38). And Shimizu discloses a menu displayed on a display screen as a setting means to permit a user of a camera to operate thereupon to select various camera operating conditions from among a plurality of items displayed on a predetermined menu, such as the speed at which the focal length of the camera lens is moved when a zooming operation is performed (column 5, lines 36-46). Using a displayed menu for selecting a camera's operating settings makes the camera easier to operate by reducing the number of operation switches (column 1, lines 18-28; column 1, line 65 through column 2, line 3).

In re pages 21-22, Applicant argues that Haraguchi '456 patent fail to teach inhibiting the lens stop control itself when rotation of the ring member is stopped.

In response, regarding claim 42, Applicant amended claim 42 with the limitation "inhibition means for inhibiting said control means from performing the stop control during a predetermined period when said detection means detects a stop of rotation of the ring member." The examiner considers that claim 42 as amended still do ^{not} distinguish from Takahashi patent in view of Haraguchi et al. patent. Takahashi does not disclose an inhibition means for inhibiting

the control means from performing the stop control. Haraguchi et al. disclose by having zoom motor 5 continue to rotate in the reverse direction for t msec after detection of POS=9, and by thereafter rotating motor 5 in the forward direction, motor 5 can be stopped precisely at POS=A under the condition that backlash on the forward rotation side is removed (column 23, line 63 through column 24, line 2).

In re page 22, Applicant argues that nowhere is the Takahashi '370 patent understood to disclose or suggest the feature of changing a sensitivity of the motion/stop control of a control means which controls motion/stop of a lens in accordance with a detected rotation amount of a ring member, so as to start the motion of the lens in accordance with a different detection result of the rotation amount of the ring member.

In response, regarding claim 44, the Applicant amended claim 44 with the claim limitation "change means for changing a sensitivity of the motion/stop control of said control means relative to a detection result of said detection means so as to start the motion of the lens in accordance with a different detection result of said detection means." The Examiner considers that these claims as amended still do not distinguish over Takahashi patent. Takahashi discloses that the rotation speed of the PZ motor 34 will be changed so as to properly adjust the zooming speed (column 10, lines 1-11).

In re page 23, Applicant argues that nowhere is the Sato '836 patent understood to disclose or suggest the feature of automatically changing a sensitivity of lens motion control

relative to a detected amount of a rotation of a ring member in accordance with a photographic (see, e.g., Fig. 25).

In response, regarding claim 48, it should be noted that the feature “automatically changing a sensitivity of lens motion control” is not recited in claim 48. The Applicant only amended claim 48 with the claim limitation “control means for controlling said lens control means so as to change a sensitivity of the motion of the magnification lens group relative to a detection result of said detection means in accordance with a photographing state.” The Examiner considers that this feature is disclosed by Sato et al. in column 5, lines 10-19, column 7, lines 19-26, column 8, lines 31-46).

Claim Objections

3. Claims 1-7, 9-10, 13 are objected to because of the following informalities:

Claim 1 (line 19), “said menu function control means” should be changed to --said menu function control unit--.

Claims 2-7, 9-10, 13 are objected as being dependent on claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2612

5. Claims 44-45 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi (US 5,159,370).

Regarding claim 44, Takahashi discloses an image pickup apparatus comprising a ring member (51) disposed concentrically about a lens optical axis of a lens unit, a detection means for detecting a change amount of rotation of the ring member (column 9, lines 1-14), a control means for determining motion direction and speed of a magnification lens group in accordance with an output of the detection means and performing motion/stop control of the magnification lens group along the optical axis (column 9, lines 15-49), and a change means for changing a sensitivity motion/stop control of said control means relative to a detection result of said detection means (column 9, lines 21-29) so as to start the motion of the lens in accordance with a different detection result of said detection means (column 10, lines 1-11).

Regarding claim 45, Takahashi discloses that the lens group is removably and exchangeably mounted on a main body of the image pickup apparatus (column 2, line 46).

Regarding claim 47, Takahashi discloses that the change means changes the motion speed of the magnification lens group relative to an output of the detection means (column 9, lines 21-29).

6. Claims 48, 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (US 5,648,836).

Regarding claim 48, Sato et al. disclose an image pickup apparatus comprising a ring member (1) disposed concentrically about a lens optical axis (figure 1), detection means (2) for detecting a change amount of a rotation of the ring member, lens control means (CPU 5) for determining motion direction and speed of a magnification lens group in accordance with an output from the detection means and performing motion/stop control of the magnification lens group along the optical axis (column 4, lines 25-41), and control means for controlling said lens control means so as to change a sensitivity of the motion of the magnification lens group relative to a detection result of the detection means in accordance with a photographing state (column 5, lines 10-19; column 7, lines 19-26; column 8, lines 31-46).

Regarding claim 50, Sato et al. disclose that the control means changes the motion speed of the magnification lens group relative to an output of the detection means (column 7, lines 19-26).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-7 and 9-10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawanami (US 5,278,601) in view of Shimizu (US 5,485,200).

Regarding claim 1, Kawanami disclose an image pickup apparatus having a camera body (3, figure 3) and a lens unit (15, figure 3), comprising a ring member (51, figure 5) for driving a lens (52); a detection means (55, 56) for detecting a change amount of rotation of the ring member; a control means (59) providing in the lens unit for performing motion/stop control of the lens group along an optical axis in accordance with a detection result by the detection means; and motion direction setting means (63) providing in camera body for a user to set a desired motion direction of the lens group relative to the rotation direction ring member, wherein the motion direction setting means comprises character display means, menu setting means, display means (21), a menu function control unit for controlling the character display means in accordance with the operation state of the menu setting means, and for displaying a predetermined menu on a display screen of the display means (column 3, lines 15-17).

Kawanami does not disclose that the menu setting means is operated by the user and does not disclose setting means for selecting a desired setting item among a plurality of items of the predetermined menu displayed on said display means by said menu function control unit and setting a condition regarding the motion direction of the lens unit; and displaying an image picked up by said image pickup means. However, Shimizu discloses display 62 for displaying an image picked up by image sensor 2 (figure 1, column 4, lines 31-38). And Shimizu discloses a menu displayed on a display screen as a setting means to permit a user of a camera to operate thereupon to select various camera operating conditions from among a plurality of items displayed on a predetermined menu, such as the speed at which the focal length of the camera lens is moved when a zooming operation is performed (column 5, lines 36-46). Using a displayed menu for selecting a camera's operating settings makes the camera easier to operate by

reducing the number of operation switches (column 1, lines 18-28; column 1, line 65 through column 2, line 3). In view of the teaching in Shimizu, it would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the menu of Kawanami so as to serve as a setting means operated upon by a user for selecting a desired setting time among a plurality of items displayed on the predetermined menu and setting a condition regarding the motion direction of the lens unit in order to reduce the number of operating switches and make the camera easier to use.

Regarding claim 2, Kawanami and Shimizu disclose that the lens group includes a magnification lens (Kawanami; 52) and the motion direction setting means comprises an operation switch (Kawanami; 63) capable of being operated by a user, and a change means (Kawanami; 64, 59) for changing the motion direction of the lens group relative to the rotation direction of the ring member in accordance with the operation of the operation switch (Kawanami; column 5, lines 20-65).

Regarding claim 3, Kawanami and Shimizu discloses that a lens unit is made removable relative to the main body of the image pickup apparatus (Kawanami; column 5, lines 25).

Regarding claim 4, Kawanami and Shimizu discloses that ring member is disposed concentrically about an optical axis of the lens group (Kawanami; figure 5).

Regarding claim 5, Kawanami and Shimizu discloses that the lens group includes a magnification lens (Kawanami; 52) and the motion direction setting means comprises memory means (Kawanami; 64) for storing motion direction information of the lens group relative to the rotation of the ring member, the motion direction being given by a user (Kawanami; switch 63), and a change means (Kawanami; 64, 59) for changing the motion direction of lens group in accordance with the motion direction information stored in the memory means.

Regarding claim 6, Kawanami and Shimizu discloses that a lens unit is made removable relative to the main body of the image pickup apparatus (Kawanami; column 5, lines 25).

Regarding claims 7 and 13, Kawanami and Shimizu discloses that ring member is disposed concentrically about an optical axis of the lens group (Kawanami; figure 5).

Regarding claim 9, Kawanami and Shimizu discloses that a lens unit is made removable relative to the main body of the image pickup apparatus (Kawanami; column 5, lines 25).

Regarding claim 10, Kawanami and Shimizu discloses that ring member is disposed concentrically about an optical axis of the lens group (Kawanami; figure 5).

9. Claims 14, 17, 26, 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawanami US (5,278,601).

Regarding claim 14, Kawanami (Embodiment 2, figure 5) discloses an image pickup apparatus having a camera part (camera body 53), a lens part (lens 40), magnification lens (zoom lens 52) and a ring member (zoom ring 51), comprising communication means (lens-camera communication 54); detection means (encoder 55) which detects a change amount of a rotation of the ring member for driving the lens part (column 5, lines 20-64); camera control means (camera microcomputer 64), provided in camera part, for selecting and determining a response characteristic between an output of said detection means and a motion of the magnification lens, and for transmitting the selected response characteristic (selecting means 63) to the lens part (column 5, lines 20-64); lens control means (lens microcomputer 59), provided in lens part, for receiving information concerning the selected response characteristic transmitted from said camera control means through said communication means, and for controlling the motion of said magnification lens in response to the operation of said ring member in accordance with the selected response characteristic (column 5, lines 20-64).

Kawanami (Embodiment 2, figure 5) fails to specifically disclose storing means, provided in said camera part, for storing information of the response characteristic so that the selected response characteristic is not volatile in the case of attaching/removing of said lens part. However, Kawanami (Embodiment 1, figures 1-2) disclose an EEPROM, provided in camera body 3, to store data and prevent data of various control actions from being erased even when power supply to camera is cut off (column 3, lines 10-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Kawanami (Embodiment 2, figure 5) by the teaching of Kawanami (Embodiment 1,

figures 1-2) to store data of control actions in an EEPROM. This prevent data of various control actions from being erased even when power supply to camera is cut off (column 3, lines 10-25).

As for claims 17 and 26, all the limitations are contained in claim 14, therefore, see Examiner's comment regarding claim 14.

Regarding claims 40 and 41, Kawanami discloses the ring member is disposed concentrically about the lens group (figures 3, 5).

10. Claims 15-16, 18-25, 27-28, 31-33, 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawanami US (5,278,601) in view of Sato et al. (US 5,648,836).

Regarding claim 15, Sato et al. fail to specifically disclose the plurality of characteristics of the camera control means include a first characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to be constant and a second characteristic for controlling a motion speed of the magnification lens to be variable in accordance with a rotation speed of the ring member. However, Sato et al. disclose that the plurality of characteristics of the control means include a first characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to be constant (column 5, lines 37-43) and a second characteristic for controlling a motion speed of the magnification lens to be variable in accordance with a rotation speed of the ring member (column 5, line 62 through column 6, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify the device in Kawanami by the teaching of Sato et al. in order to control the motion of magnification lens at a desired speed.

Regarding claim 16, Kawanami fails to specifically disclose the plurality of characteristics of the control means include a first characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to become a first predetermined amount and a second characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to become a second predetermined amount different from the first predetermined amount. However, Sato et al. disclose that the plurality of characteristics of the control means include a first characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to become a first predetermined amount and a second characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to become a second predetermined amount different from the first predetermined amount (column 6, lines 49-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Kawanami by the teaching of Sato et al. in order to control the motion of magnification lens at a desired speed.

As to claim 18, see Examiner's comments regarding claim 15.

As to claim 19, Kawanami discloses that the characteristic of the control means is changed in accordance with the state of an operation switch capable of being operated by a user (manual operation, column 1, lines 5-10).

As to claim 20, Kawanami discloses that the characteristic of the control means is changed in accordance with information of the characteristic of the control means set by a user (manual operation, column 1, lines 5-10).

As to claim 21, Sato et al. disclose that the characteristic of the control means is changed in accordance with a photographing state (column 8, lines 31-46).

As to claims 22 and 24, see Examiner's comments regarding claim 16.

As to claims 23 and 25, see Examiner's comments regarding claim 19.

As to claim 27, see Examiner's comments regarding claim 15.

As to claim 28, see Examiner's comments regarding claim 16.

Regarding claim 31, Sato et al. disclose an operation switch capable of being operated upon by a user and change means for changing the characteristic of the control means in accordance with a state of the operation switch (column 5, lines 10-19; column 7, lines 19-26; column 8, lines 41-46).

Regarding claim 32, Sato et al. disclose that change means changes the characteristic of the control means in accordance with information of the characteristic of the control means set by a user (column 5, lines 10-19; column 7, lines 19-26; column 8, lines 41-46).

Regarding claim 33, Sato et al. disclose that change means changes the characteristic of the control means in accordance with a photographing state (column 8, lines 31-46).

As to claim 35, see Examiner's comments regarding claim 31.

As to claim 36, see Examiner's comments regarding claim 32.

As to claim 37, see Examiner's comments regarding claim 33.

11. Claims 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (US 5,159,370) in view of Haraguchi et al. (US 5,475,456).

Regarding claim 42, Takahashi discloses an image pickup apparatus comprising a ring member (51) disposed concentrically about a lens optical axis of a lens unit, a detection means for detecting a change amount of rotation of the ring member (column 9, lines 1-14), a control means for determining motion direction and speed of a magnification lens group in accordance with an output of the detection means and performing motion/stop control of the magnification lens group along the optical axis (column 9, lines 15-49).

Takahashi does not disclose an inhibition means for inhibiting said control means performing the stop control during a predetermined period when said detection means detects a stop of rotation of the ring member. However, Haraguchi et al. disclose inhibiting a magnification lens from stopping during a predetermined period after a stop command has been issued so that the lens can be stopped more precisely at a desired terminal position (column 23, line 63 through column 24, line 2). In view of the teaching in Haraguchi et al., it would have been obvious to one of ordinary skill in the art at the time of the invention to provide in

Takahashi an inhibition means for inhibiting the magnification lens to stop during a predetermined period in the state that said detection means does not detect the amount of rotation in order to more precisely perform the stopping operation.

Regarding claim 43, Takahashi discloses that the lens unit is removably and exchangeably mounted on a main body of the image pickup apparatus (column 2, line 46).

12. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 5,648,836) in view of Kawanami (US 5,278,601).

Regarding claim 49, Sato et al. disclose all of the limitations except that of the lens unit being removably and exchangeably mounted. However, Kawanami teaches that such a design is well known in the art (column 1, lines 19-22). Enabling the lens unit of Sato et al. to be removably would clearly increase the utility of the device by permitting the use of other zoom lens units thereby providing a greater variety of zooming options. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the lens unit in Sato et al. removably mounted in order to increase the utility of the device by providing a greater variety of zooming options.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Luong Nguyen** whose telephone number is (703) 308-9297. If

attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reached on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
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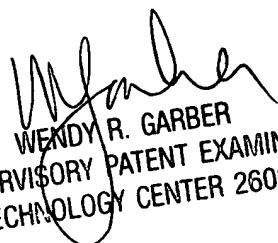
or faxed to:

(703) 872 - 9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.

LN LN
6/14/2003


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600